



News Release

U.S. ARMY CORPS OF ENGINEERS

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Army Corps of Engineers planning risk reduction measures at Howard Hanson Dam

SEATTLE--After much analysis and review, the U.S. Army Corps of Engineers has determined that the most effective risk reduction measures to construct at Howard Hanson Dam would be to rehabilitate the existing drainage tunnel, add a branch to that tunnel through the area of highest concern to intercept seepage, and to install additional vertical and horizontal drains to channel more water from the abutment into the tunnel. Once these measures are in place, the Corps believes that the dam could be operated at full capacity.

Funding recently approved for the Corps would allow construction to begin before the end of the year.

The Corps looked at extending a previously constructed grout curtain to address the Corps' concerns about seepage through the dam's north abutment, but engineers and scientists found after thorough analysis that rehabilitating the existing tunnel and a tunnel extension would be more effective and durable than a grout curtain extension.

The Corps of Engineers constructed an interim seepage barrier (grout curtain) in 2009 to reduce seepage and improved the drainage of the right abutment by installing drains that more effectively direct seepage into the drainage tunnel. Data collected from testing this spring have shown these measures to be effective in controlling seepage through the abutment.

This spring, the Corps was able to hold a pool of 1,167 feet above sea level (48 percent of full) for more than two months without seeing any problems. This has provided additional confidence in the storage capacity of the dam for this coming flood season.

The reservoir at Howard Hanson Dam reached 1,170 feet in elevation and was held at an elevation at or above 1,167 feet May 9 through July 12, allowing engineers to test the interim seepage barrier with additional reservoir volume. During the conservation pool, the Corps conducted in-depth investigations of the dam's current effectiveness.

Background:

During January 2009 flooding symptoms of internal erosion were observed, prompting an operational limitation of the dam at the headwaters of the Green River. This operational limitation raised the flood risk for those communities in the Green River Valley downstream to levels not seen for 50 years.

The Corps operates the Howard Hanson Dam project, which provides flood damage reduction to the cities of Auburn, Kent, Renton and Tukwila, as well as low-flow augmentation to the Green River for environmental benefits. More details and history about Howard Hanson Dam and the right abutment issue can be found at <http://www.nws.usace.army.mil>.